MODIFICATION INSTRUCTIONS

for the

3752 *Kodak Min-R* MAMMOGRAPHY PROCESSOR

4357 *Kodak Min-R* MAMMOGRAPHY INTEGRATED PROCESSOR

3554 *Kodak X-Omat* 2000 PROCESSOR

3555 *Kodak X-Omat* 2000A PROCESSOR

3414 *Kodak Industrex* M35 PROCESSOR

3415 *Kodak Industrex* M35A PROCESSOR

Modification No. 22

Type 1 Required

Important: Qualified service personnel must install this Modification.

Purpose:

1. Installation of a new, improved 135 PCB to eliminate heat-related CIRCUIT BOARD problems.

2. Installation of a new CAPACITOR and a new MOV to minimize the effects of internal electrical noise that can cause the 135 PCB to reset and PROCESSOR to unexpectedly go into Standby.

HEALTH IMAGING

Service Effects: None.

The new PCB can be installed and serviced the same way as the previous version of the 135 PCB. Refer to the following Publications for reference:

Publication	Pub P/N
SERVICE BULLETIN # 300 Revised: JUNE 2004	6F9034
SERVICE BULLETIN # 316 New: JUNE 2004	6F6894
ADDENDUM to the INSTALLATION INSTRUCTIONS (Adjusting the 135 PCB)	6F9031
ADDENDUM to the ADJUSTMENTS AND REPLACEMENTS (Adjusting the 135 PCB)	6F9032
INSTALLATION INSTRUCTIONS for the 135 PCB (for the Packed 135 PCB Service Part)	6F9033
CIRCUIT DIAGRAMS for the:	
Kodak Min-R MAMMOGRAPHY PROCESSOR and *Kodak Min-R* MAMMOGRAPHY INTEGRATED PROCESSOR	6F6846
Kodak X-Omat 2000 PROCESSOR	6F9030
Kodak X-Omat 2000A PROCESSOR	6F6848
Kodak Industrex M35 PROCESSOR	6F6847
Kodak Industrex M35A PROCESSOR	6F6852

Special Requirements: None.

Special Tools: None

Serial Numbers:

Processors	Serial No. (Start)	Serial No. (End)
Kodak Min-R MAMMOGRAPHY PROCESSOR	233450	299999
Kodak Min-R MAMMOGRAPHY INTEGRATED PROCESSOR	250001	299999
Kodak X-Omat 2000 PROCESSOR	204102	299999
Kodak X-Omat 2000A PROCESSOR	216041	299999
Kodak Industrex M35 PROCESSOR	160321	299999
Kodak Industrex M35-A PROCESSOR	175170	299999

Installation Time: 30 Minutes.

Parts Requirements:

Mod 22 Kit, 6F6854, includes the following:

Part No.	Description	Qty.
6F9035	MODIFICATION INSTRUCTIONS for MOD 22	1
6F6849	135 PRINTED CIRCUIT BOARD- Packed	1
9B8722	CAPACITOR	1
6F8505	MOV with .250 in. (6.35 mm) quick-connect TERMINALS	1
6F8503	MOV with .187 in. (4.75 mm) quick-connect TERMINALS	1
7C8765	US&C Distributor Modification Reimbursement Card	1

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

Installing the 135 Printed Circuit Board (PCB)

Warning Dangerous Voltage

1. De-energize and disconnect the main power from the PROCESSOR.

2. Access the ELECTRICAL BOX.

3. Is there a 135 PCB installed in this PROCESSOR?

YES	NO
Continue with the next step.	Mod #22 is **not** required. Assemble the PROCESSOR, and check for correct operation.

4. Is Mod No. 22 circled on the MODIFICATION STICKER for this PROCESSOR?

YES	NO
Installation **is not** required. (Mod #22 is already installed.) Assemble the PROCESSOR, and check for correct operation.	Mod #22 installation **is** required. Continue with the next step.

5. Remove the existing 135 PCB, save all hardware.
   > **Note**
   > Discard the old 135 PCB.

6. Install the new 135 PCB, p/n 6F6849, using the hardware from the previous step.
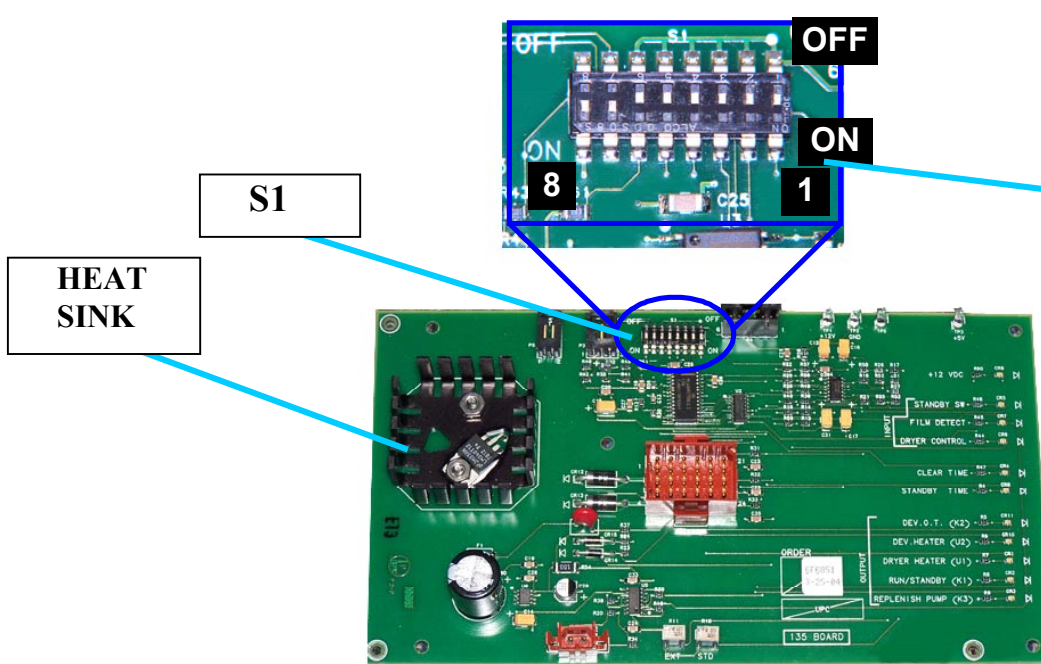
Setting the S1 DIP SWITCHES

1. Set the S1 DIP SWITCHES according to the table below:

Important
Power to the PROCESSOR must always be OFF when setting the S1 DIP SWITCHES

NOTE that S1 is actually upside down in this view.
 Therefore:
- S1-8 is on the left
- S1-1 is on the right
- Off is up
- On is down

S1

HEAT SINK

Factory DIP Switch Settings

Switch Positions:		8	7	6	5	4	3	2	1
PROCESSOR	DIP Switch Positions As Viewed on 135 Board (See Photo Above)	Dryer Temp. Range	Dryer Temp. Range	Film Feed Delay Buzzer	Flooded Replenishment	Clear Time	Clear Time	Clear Time	Clear Time
Kodak X-Omat 2000 PROCESSOR	87654321 OFF/ON	On (High)	On (High)	Off (3 sec)	Off (Disabled)	On (4	On Min.	On Clear	Off Time)
Kodak X-Omat 2000A PROCESSOR	87654321 OFF/ON	Off (Low)	Off (Low)	Off (3 sec)	Off (Disabled)	On (4	On Min.	On Clear	Off Time)
Kodak Min-R MAMMOGRAPHY PROCESSOR	87654321 OFF/ON	On (High)	On (High)	Off (3 sec)	On (Enabled)	On (4	On Min.	On Clear	Off Time)
Kodak Min-R MAMMOGRAPHY INTEGRATED PROCESSOR	87654321 OFF/ON	On (High)	On (High)	Off (3 sec)	On (Enabled)	On (4	On Min.	On Clear	Off Time)
Kodak Industrex M35 PROCESSOR	87654321 OFF/ON	On (High)	On (High)	On (8 sec)	Off (Disabled)	Off (13	On Min.	Off Clear	On Time)
Kodak Industrex M35A PROCESSOR	87654321 OFF/ON	Off (Low)	Off (Low)	On (8 sec)	Off (Disabled)	Off (13	On Min.	Off Clear	On Time)

Installing the CAPACITOR and the MOV

Follow the instructions in the chart below for the model of PROCESSOR that you have.

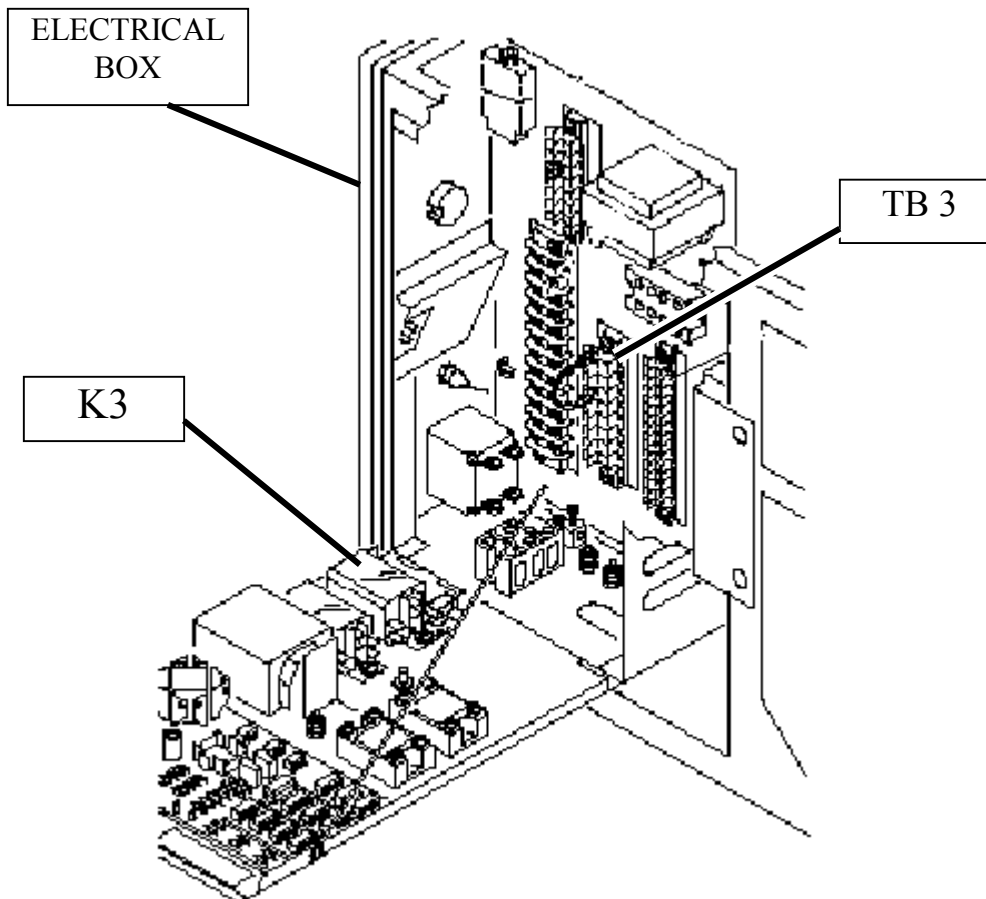| PROCESSOR MODEL	INSTRUCTIONS
Kodak X-Omat 2000A *Kodak Industrex* M35 *Kodak Industrex* M35A	Use **Section A** Instructions
Kodak X-Omat 2000 *Kodak Min-R* MAMMOGRAPHY *Kodak Min-R* MAMMOGRAPHY INTEGRATED	Use **Section B** Instructions

Section A

Instructions for:
***Kodak X-Omat* 2000A PROCESSOR**
***Kodak Industrex* M35 PROCESSOR**
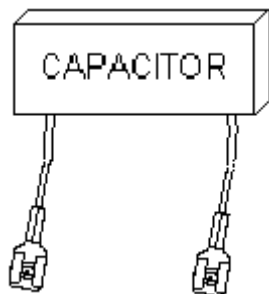***Kodak Industrex* M35A PROCESSOR**

1. Locate TB3 in the ELECTRICAL BOX.

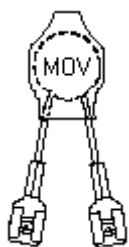**MODIFICATION INSTRUCTIONS**

2. Move the blue WIRE #2 from TB3-2 to TB3-1.

3. Install CAPACITOR 9B8722 across TERMINALS TB3-2 and TB3-6.

4. Locate RELAY K3 in the ELECTRICAL BOX.

5. From RELAY K3, remove:
   ◇ WIRE 8 from TERMINAL K3-7
   ◇ WIRE 12 from TERMINAL K3-5

6. Install the MOV 6F8503 (with the small CONNECTORS)
   across TERMINALS K3-5 and K3-7.

   ▷ **Note**
   Discard the other MOV from the MOD KIT.

7. Install the WIRES removed in step 5:
   ◇ WIRE   8 to TERMINAL K3-7
   ◇ WIRE 12 to TERMINAL K3-5

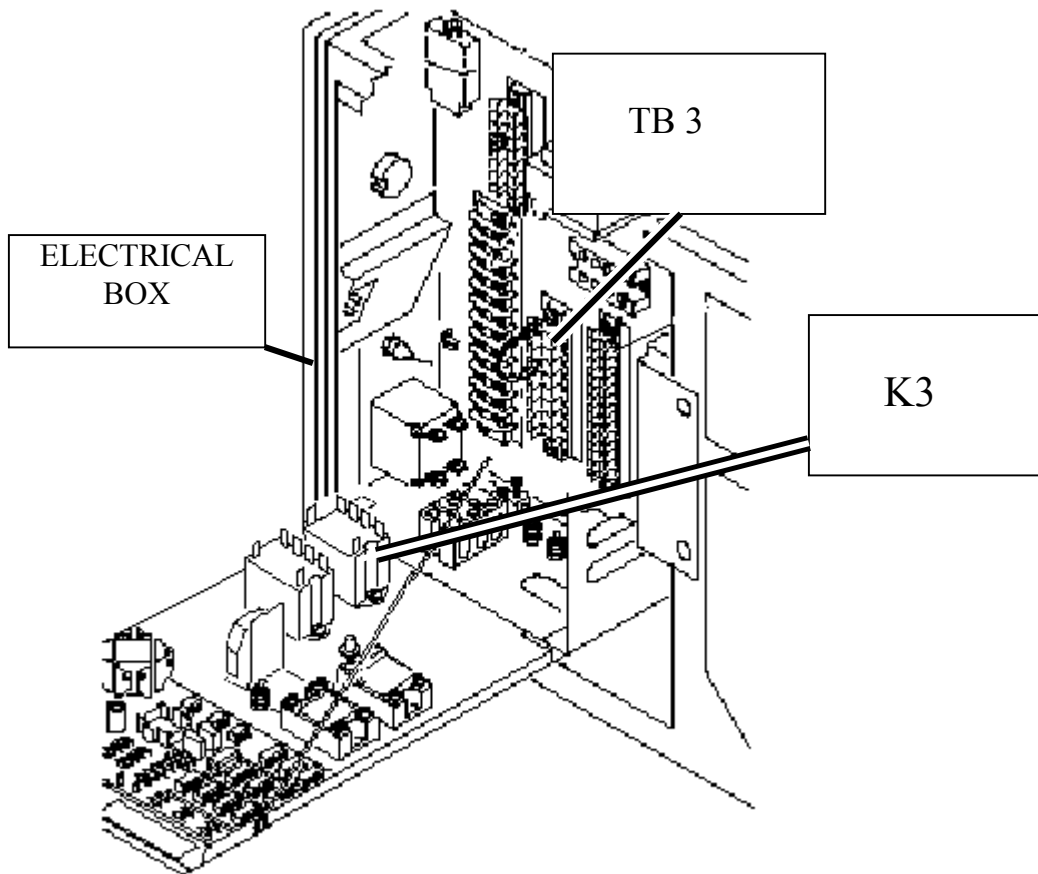8. Advance to Setting the Flooded Replenishment Option Section.
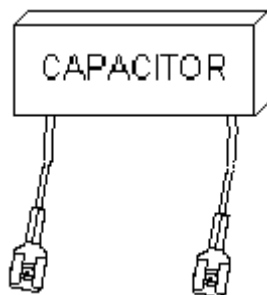
Section B

Instructions for:
Kodak X-Omat **2000 PROCESSOR**
Kodak Min-R **MAMMOGRAPHY PROCESSOR**
Kodak Min-R **MAMMOGRAPHY INTEGRATED PROCESSOR**
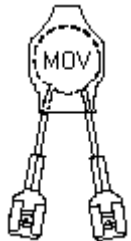

1.   Locate TB3 in the ELECTRICAL BOX.

2.   Install CAPACITOR 9B8722 across TERMINALS TB3-2 and TB3-6.

MODIFICATION INSTRUCTIONS

3. Locate RELAY K3 in the ELECTRICAL BOX.

4. From RELAY K3, remove:
   ◇ WIRE 8 from TERMINAL K3-2
   ◇ WIRE 12 from TERMINAL K3-1

5. Install the MOV 6F8505 (with the large CONNECTORS)
   across TERMINALS K3-1 and K3-2.

   ▷ **Note**

      Discard the other MOV from the MOD KIT.

6. Install the WIRES removed in step 4:
   ◇ WIRE   8 to TERMINAL K3-2
   ◇ WIRE 12 to TERMINAL K3-1

Setting the Flooded Replenishment Option

⚠ **Important**

- With the Flooded Replenishment option **Enabled**:
  ◇ The REPLENISHMENT PUMPS will run each time that a film is fed.
  ◇ Also, the REPLENISHMENT PUMPS will run an **additional** 20 seconds every 5 minutes.

  ▷ **Note**

  Flooded Replenishment times are not adjustable on the 135 PCB.

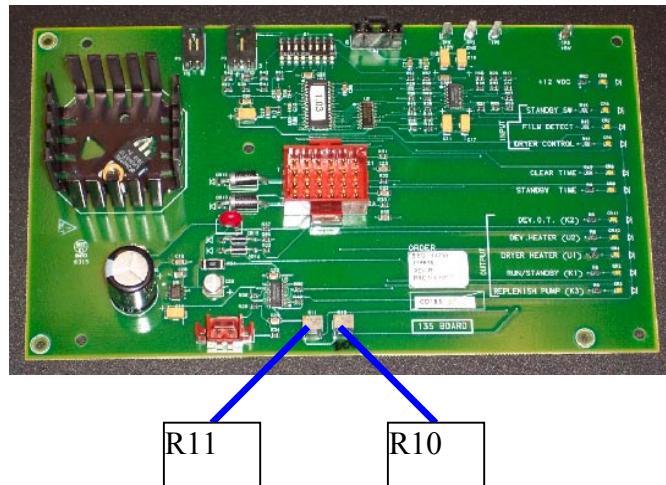- With the Flooded Replenishment option **Disabled**:
  ◇ The REPLENISHMENT PUMPS will run each time that a film is fed.

1. Verify whether Flooded Replenishment is to be used for this PROCESSOR.

2. Set the Flooded Replenishment as follows:

ENABLE	DISABLE
S1-5 to ON	S1-5 to OFF

Adjusting the DEVELOPER Temperature

1. Energize the PROCESSOR.

2. Allow the PROCESSOR to reach operating temperature.

3. Follow the instructions in the chart below for the model of PROCESSOR that you have.

PROCESSOR MODEL	INSTRUCTIONS
Kodak X-Omat 2000 PROCESSOR *Kodak X-Omat* 2000A PROCESSOR *Kodak Min-R* MAMMOGRAPHY PROCESSOR *Kodak Min-R* MAMMOGRAPHY INT. PROCESSOR.	• Adjust R10 to set the correct DEVELOPER temperature.
Kodak Industrex M35 PROCESSOR *Kodak Industrex* M35A PROCESSOR	• STANDARD CYCLE: Adjust R10 to set the correct DEVELOPER temperature. • EXTENDED CYCLE: Adjust R11 to set the correct DEVELOPER temperature.

Final Steps

1. Circle # 22 on the MODIFICATION STICKER of the PROCESSOR.

2. Assemble the PROCESSOR, and check for correct operation.

Publication History

Publication Date	Publication No.	ECO No.	Changed Pages	File Name	Notes
24 JUN 04	6F9035	4014-605	New Pub	6F9035.doc	New Modification Instructions

Kodak, Industrex, Min-R, and X-Omat **are trademarks.**